REMARKS

The Office Action mailed June 26, 2007 has been carefully considered. Reconsideration in view of the following remarks is respectfully requested.

Record of Interview

On September 24, 2007, an interview was conducted by telephone between Examiner Lee and the undersigned. The Applicants thank the Examiner for granting this interview. Details of the interview are set forth in the Interview Summary document mailed October 5, 2007. During the interview, the undersigned indicated the rejections under 35 U.S.C. §§ 102 and 103 in the Office Action mailed June 26, 2007 did not have the level of clarity required by the M.P.E.P. The undersigned also indicated the rejection under 35 U.S.C. §§ 102 was an improper omnibus rejection. The undersigned asked that a new Office Action be issued and the date for reply reset. The Examiner offered to address the issues raised in an Examiner's Interview Summary. The Applicants respectfully submit that the Examiner's Interview Summary mailed October 5, 2007 has not adequately addressed the issues discussed during the interview. Accordingly, the present Response includes a discussion of the lack of clarity issue and the omnibus rejection of claims.

Claim Status and Amendment of the Claims

Claims 1-43 are currently pending.

No claims stand allowed.

Claims 1-2, 5-7, 10-11, 14-16, 19-27, 31-33, 35-37, 39, and 41-42 have been amended to further particularly point out and distinctly claim subject matter regarded as the invention. Support for these changes may be found in the specification, figures and claims as originally

filed. The text of claims 3-4, 8-9, 12-13, 17-18, 28-30, 34, 38, and 40 is unchanged, but their meaning is changed because they depend from amended claims.

New claims 44 and 45 also particularly point out and distinctly claim subject matter regarded as the invention. Claim 44 is a means-plus-function apparatus claim. Claim 45 is an *In re Beauregard* claim corresponding to method claim 1. Support for these claims may be found in the specification, figures, and claims as originally filed.

The 35 U.S.C. § 102 Rejection

Claims 1-4, 8, 10-13, 17, 19-22, 27-30, and 35-43 stand rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Duncan et al.[1][2] This rejection is respectfully traversed.

Improper Omnibus Rejection

As an initial matter, the Applicant submits that the omnibus rejection of Claims 1-4, 8, 10-13, 17, 19-22, 27-30, and 35-43 under 35 U.S.C. § 102 is improper. The M.P.E.P. states:

> A plurality of claims should never be grouped together in a common rejection, unless that rejection is equally applicable to all claims in the group.[3]

In a single paragraph, the Examiner has grouped 8 independent claims (1, 10, 19, 27, and 35-39) into a single omnibus rejection under 35 U.S.C. § 102. Claims 1, 10, 19, 27, and 35 as presently amended refer to sending a first loop packet from a first port in a switching device of the first network running a loop avoidance protocol instance, the first loop packet including a first identifier with a first reference to the first port, while Claims 36, 37, and 39 do not. Claims 1, 10, 19, 27, and 35 as presently amended refer to receiving a second loop packet at the switching

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[1] U.S. Publication No. 2002/0154606 to Duncan et al.
[2] Office Action mailed June 26, 2007, at ¶ 2.
[3] M.P.E.P. §707.07(d).

device, the second loop packet including a second identifier with a second reference to a second port, while claims 36, 37, and 39 do not. Claims 1, 10, 19, 27, and 35 refer to comparing the second reference with the first reference, while claims 36, 37, and 39 do not. Claims 1, 10, 19, 27, and 35 refer to detecting the loop in a second network when the first and second references match, while claims 36, 37, and 39 refer to detecting a loop in the second network.

Furthermore, Claim 35 as presently amended requires a *plurality* of switching devices in the first network, a *plurality* of ports, while claims 1, 10, 19, and 27, do not. The Examiner has made no reference to this feature of Claim 35.

Further still, Claims 36, 37, and 39 refer to protecting the first network when a loop is detected in the second network, while claims 1, 10, 19, 27, and 35 do not. Moreover, the 35 U.S.C. § 102 rejection of Claims 1, 10, 19, 27, and the Examiner makes no reference to this "protecting" claim element. The omnibus rejection under 35 U.S.C. § 102 is therefore not equally applicable to all claims in the group and is thus improper.

As an further initial matter, the Applicants respectfully submit the Examiner has not provided the required level of clarity required by the Patent Rules. The Applicants respectfully assert that this general rejection is improper for the following reasons.

The Patent Rules provide:

> In rejecting claims for want of novelty or for obviousness, the examiner must cite the best reference at his or her command. When reference is complex or shows or describes inventions other than that claimed by the applicant, *the particular part relied on must be designated as nearly as practicable.* The pertinence of each reference, if not apparent, must be clearly explained and each rejected claims specified.[4]

For example, in support of the rejection of Claims 1, 10, 19, 27, and 35-39, the Examiner refers

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[4] 37 C.F.R. §1.104 (c). (emphasis added)

to paragraphs 43 and 44 of <u>Duncan et al.</u> in support of the Examiner's contention that <u>Duncan et al.</u> discloses the following two elements of Claims 1, 10, 19, 27, and 35-39[5]:

> sending a first loop packet from a first port in a bridge of the first network running a loop avoidance protocol instance, the first loop packet including a first identifier with a first reference to the first port;
> receiving a second loop packet at the bridge, the second loop packet including a second identifier with a second reference to a second port;

The portion of <u>Duncan et al.</u> cited by the Examiner reads as follows:

> [0044] For example, suppose that as a result of the STP negotiation process, Switches A, B and C elect to place port 5 of Switch B in the "blocking state", therefore preventing data packets from being passed from that port along link 7A. At the other end of link 7A, port 4 of Switch C is placed in the "forwarding state" in accordance with the STP negotiation process. In the forwarding state, a port forwards received and switched data packets and responds to network management messages. The link 7A is effectively inactive because port 5 of switch B is in the "blocking state", and the network 1A passes data packets in the same way as the network topology of network 1 of FIG. 1.
> [0045] However, prior to completion of the negotiation process, port 5 of Switch B may have learnt the addresses of endstations y and z from communications from endstations y and z to endstations m and x, and port 4 of Switch C may similarly have learnt the addresses of endstations m and x from communications from endstations m and x to endstations y and z This may lead to conflicts in the address tables of the ports of Switches B and C which will make it impossible for the tree-building algorithm to determine the topology of the network.[6]

The Examiner has not indicated what in paragraphs 43-44 of <u>Duncan et al.</u> the Examiner equates to the first loop packet recited in Claim 1. Nor has the Examiner indicated what in paragraphs 43-44 of <u>Duncan et al.</u> the Examiner equates to the first port recited in Claim 1. Nor has the Examiner indicated what in paragraphs 43-44 of <u>Duncan et al.</u> the Examiner equates to the switching device of the first network running a loop avoidance protocol instance recited in Claim 1. Nor has the Examiner indicated what in paragraphs 43-44 of <u>Duncan et al.</u> the Examiner equates to a first identifier with a first reference to the first port recited in Claim 1. Nor has the Examiner indicated what in paragraphs 43-44 of <u>Duncan et al.</u> the Examiner equates to a second

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[5] As noted earlier, Claims 36, 37, and 39 do not actually recite these two claim elements.

loop packet recited in Claim 1. Nor has the Examiner indicated what in paragraphs 43-44 of

Duncan et al. the Examiner equates to second identifier with a second reference to a second port

recited in Claim 1.

Similarly, with respect to the rejection of Claims 2-4, 11-13, 20-22, 28-30, and 40-43, the

Examiner also failed to provide the required level of particularity. For example, Claim 2 depends

from Claim 1 and requires blocking at least one of the ports in the first switching device when

the first and second references match; Claim 3 depends from Claim 2 and further requires that

the blocking includes blocking the port which sent the first loop packet; Claim 4 also depends

from Claim 2 and requires that the blocking includes blocking the port which received the second

loop packet. Yet the Examiner's rejection of dependent claims 2-4 refers to the rejection of

independent claim 1, without indicating where each of the limitations of Claims 2-4 are found in

Duncan et al.

For the above reasons, the Applicants submit the Examiner has not designated the

particular part of Duncan et al. relied on as nearly as practicable. Nor has the pertinence of

Duncan et al. been clearly explained as required by the Patent Rules.

Turning to the substance of the 35 U.S.C. § 102 rejection, according to the M.P.E.P., a

claim is anticipated under 35 U.S.C. § 102(a), (b) and (e) only if each and every element as set

forth in the claim is found, either expressly or inherently described, in a single prior art

reference.[7]

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[6] Duncan et al. at ¶¶ 43-44.
[7] Manual of Patent Examining Procedure (MPEP) § 2131. See also *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Claim 1

Claim 1 as presently amended recites:

A method comprising:
sending a first loop packet from a first port in a switching device of the first
    network running a loop avoidance protocol instance, the first loop packet
    including a first identifier with a first reference to the first port;
receiving a second loop packet at the switching device, the second loop packet
    including a second identifier with a second reference to a second port;
comparing the second reference with the first reference; and
detecting the loop in a second network when the first and second references
    match, the second network communicably coupled to the first network, the
    second network not running the first avoidance protocol instance.

The Examiner states:

> ... fig. 4 teaches step 205 that determines which of the core devices are STP enable
> switches (first network with-loop avoidance protocol..& a second network not
> running the loop avoidance protocol); STP negotiation exchanges STP messages
> on the ports (sending... receiving a first/secondloop packet... on first/second port);
> [0043, 0044]; whereby during a STP negotiation, the two ports directly connected
> having a designated port ID (first/second identifiers) are compared and matched
> (comparing the second... first references) [0057]; wherein the STP detects the loop
> in based on the STP exchange.[8]

The Applicants respectfully disagree for the reasons set forth below.

Contrary to the Examiner's statement, Duncan et al. does not disclose detecting the loop

in a the second network when the first and second references match, the second network

communicably coupled to the first network, the second network not running the first avoidance

protocol instance as required by Claim 1. Duncan et al. is directed to solving the problem of

detecting loops in networks where STP is implemented, but loops are present prior to the

completion of the STP negotiation process.[9] Whereas embodiments of the present invention as

presently claimed are directed to, in a first network where STP is implemented, detecting a loop

in a second network where STP is not implemented. With this Amendment, the limitation that

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[8] Office Action dated June 26, 2007, p. 2.

the second network not run the loop avoidance protocol has been moved from the preamble to the claim elements to make this distinction more clear.

In support of the Examiner's contention that <u>Duncan et al.</u> discloses a first network running a loop avoidance protocol instance and a second network not running the first loop avoidance protocol instance, the Examiner refers to a portion of <u>Duncan et al.</u> that shows determining which of the core network devices are STP-enabled switches.[10] And in support of the Examiner's contention that <u>Duncan et al.</u> discloses the "sending" and "receiving" elements of Claim 1, the Examiner refers to paragraphs 43 and 44 of <u>Duncan et al.</u>, which shows an example where *all* switches in a single network are STP-enabled. Therefore, the <u>Duncan et al.</u> cannot be said to disclose the "sending" and "receiving" elements, where a first network is running a loop avoidance protocol instance and a second network is not running the first loop avoidance protocol instance as required by Claim 1. For this reason, the 35 U.S.C. § 102 rejection of Claim 1 is unsupported by the cited art of record. Thus, a *prima facie* case has not been established and the rejection must be withdrawn.

<u>Claims 10, 19, and 27</u>

Claim 10 is a system claim corresponding to method claim 1. Claim 19 is a non-means-plus-function apparatus claim corresponding to method claim 1. Claim 27 is an *In re Beauregard* claim corresponding to method claim 1. Claim 1 being allowable, Claims 10, 19, and 27 must also be allowable for at least the same reasons as Claim 1.

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[9] *See* <u>Duncan et al. at</u> ¶ 19.

Claim 35

The arguments made above with respect to Claims 10, 19, and 27 apply here as well. And as mentioned previously, Claim 35 as presently amended requires a *plurality* of switching devices in the first network, a *plurality* of ports, while claims 1, 10, 19, and 27, do not. The Examiner has made no reference to this feature of Claim 35. For this additional reason, the 35 U.S.C. § 102 rejection of Claim 35 is unsupported by the cited art of record and must be withdrawn.

Dependent Claims 2-4, 8, 11-13, 17, 20-22, 28-30, and 40-43

Claims 2-4, 8, and 40 depend from Claim 1. Claims 11-13, 17, and 42 depend from Claim 10. Claims 20-22 and 42 depend from Claim 19. Claims 28-30 and 43 depend from Claim 27. Claims 1, 10, 19, and 27 being allowable, Claims 2-4, 8, 11-13, 17, 20-22, 28-30, and 40-43 must also be allowable.

And as mentioned above, the Examiner has failed to provide the required level of particularity. For example, Claim 2 depends from Claim 1 and requires blocking at least one of the ports in the first switching device when the first and second references match; Claim 3 depends from Claim 2 and further requires that the blocking includes blocking the port which sent the first loop packet; Claim 4 also depends from Claim 2 and requires that the blocking includes blocking the port which received the second loop packet. Yet the Examiner's rejection of dependent claims 2-4 refers to the rejection of independent claim 1, without indicating where each of the limitations of Claims 2-4 are found in <u>Duncan et al.</u> For this additional reason, the Examiner has failed to establish a *prima facie* case and the rejection must be withdrawn.

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[10] <u>Duncan et al.</u>, reference numeral 205 of FIG. 4.

Claims 8 and 17

Claim 8 recites:

The method as recited in claim 1, wherein the first network is running a first
instance of a spanning tree protocol and the second network is not running the
first instance of the spanning tree protocol.

Claim 17 recites:

The system as recited in claim 10, wherein the first network is running a first
instance of a spanning tree protocol and the second network is not running the
first instance of the spanning tree protocol.

The Examiner states:

... refer to Claim 1, wherein the identified nodes support STP(running Spanning
tree protocol).[11]

The Applicants respectfully disagree. The arguments made above with respect to Claims 1 and

10 apply here as well. In support of the Examiner's contention that Duncan et al. discloses a first

network running a loop avoidance protocol instance and a second network not running the first

loop avoidance protocol instance, the Examiner refers to a portion of Duncan et al. that shows

determining which of the core network devices are STP-enabled switches.[12] And in support of

the Examiner's contention that Duncan et al. discloses the "sending" and "receiving" elements of

Claim 1, the Examiner refers to paragraphs 43 and 44 of Duncan et al., which shows an example

where *all* switches in a single network are STP-enabled. Therefore, the Duncan et al. cannot be

said to disclose the "sending" and "receiving" elements, where a first network is running an STP

instance and a second network is not running the STP instance as required by Claims 8 and 17.

For this additional reason, the 35 U.S.C. § 102 rejection of Claims 8 and 17 is unsupported by the

cited art of record. Thus, a *prima facie* case has not been established and the rejection must be

withdrawn.

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[11] Office Action, p. 3.
[12] Duncan et al., reference numeral 205 of FIG. 4.

The First 35 U.S.C. § 103 Rejection

Claims 5-6, 9, 14-15, 18, 23-24, 26, 31-32, and 34 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over <u>Duncan et al.</u> in view of <u>Mahajan et al.</u>,[13] among which no claims are independent claims.[14] This rejection is respectfully traversed.

According to the Manual of Patent Examining Procedure (M.P.E.P.),

> To establish a *prima facie* case of obviousness, three basic criteria must be met. First there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in the applicant's disclosure.[15]

Claims 5-6 and 9 depend from Claim 1. Claims 14-15 and 18 depend from Claim 10. Claims 23-24 and 26 depend from Claim 19. Claims 31-32 and 34 depend from Claim 27. The arguments made above with respect to the 35 U.S.C. § 102 rejection of independent Claims 1, 10, 19, and 27 apply here as well. The 35 U.S.C. § 102 rejection of Claims 1, 10, 19, and 27 is unsupported by the cited art of record because each and every element as set forth in Claims 1, 10, 19, and 27 is not found in <u>Duncan et al.</u> Accordingly, the 35 U.S.C. § 103 rejection of dependent claims 5-6, 9, 14-15, 18, 23-24, 26, 31-32, and 34 based on <u>Duncan et al.</u> in view of <u>Mahajan et al.</u> is also unsupported by the cited art of record. Thus, a *prima facie* case has not been established and the rejection must be withdrawn.

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[13] U.S. Patent No. 6,628,624 to <u>Mahajan et al.</u>
[14] Office Action at ¶ 4.
[15] M.P.E.P § 2143.

The Second 35 U.S.C. § 103 Rejection

Claims 7, 16, 25, and 33 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over <u>Duncan et al.</u>, of which no claims are independent claims.[16] This rejection is respectfully traversed.

Claim 7 recites:

> The method as recited in claim 1, wherein the first identifier further includes a third reference to the switching device, the second identifier further includes a fourth reference to another switching device, and the method further comprises:
> comparing the third and fourth references; and
> when the third reference matches the fourth reference and the first reference does not match the second reference, dropping the second loop packet.

The Examiner states:

> ... Duncan teaches the Bride ID (first and second reference) and Port ID (third and fourth references) whereby a comparison is made. Duncan fails to explicitly teach, "dropping the second loop packet" is the "third and fourth references does not match". One skilled in the art would have been motivated to drop the un-match message because the STP cannot be negotiated with the respective message packet.[17]

The Applicants respectfully disagree for the reasons set forth below.

Claims 7, 16, 25, and 33 depend from Claims 1, 10, 19, and 27, respectively. The rejection of Claims 7, 16, 25, and 33 under 35 U.S.C. § 103(a) refers to the limitations found in dependent claims 7, 16, 25, and 33, yet says nothing about the limitations found in the claims from which Claims 7, 16, 25, and 33 depend. For this reason, a *prima facie* case has not been established and the rejection must be withdrawn.

To the extent the examiner intends to support the 35 U.S.C. § 103(a) of Claims 7, 16, 25, and 33 based on the 35 U.S.C. § 102 rejection of the claims from which Claims 7, 16, 25, and 33 depend, the arguments made above with respect to the 35 U.S.C. § 102 rejection of independent

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[16] Office Action at ¶ 5.

Claims 1, 10, 19, and 27 apply here as well. The 35 U.S.C. § 102 rejection of Claims 1, 10, 19, and 27 is unsupported by the cited art of record because each and every element as set forth in Claims 1, 10, 19, and 27 is not found in Duncan et al. Accordingly, the 35 U.S.C. § 103 rejection of dependent claims 7, 16, 25, and 33 based on Duncan et al. alone is also unsupported by the cited art of record. Thus, a *prima facie* case has not been established and the rejection must be withdrawn.

Furthermore, the Office action admits that Duncan et al. does not teach the limitations found in 7, 16, 25, and 33, but does not provide a specific reference where such a limitation is found, instead arguing that one of ordinary skill in the art would have found it obvious to modify the invention in Duncan et al. to arrive at the additional claim limitation. Therefore, applicant assumes that the Office Action intended to take official notice of facts under M.P.E.P. 2144.03 that the rationale supporting the obviousness rejection is based on common knowledge in the art or "well-known" prior art. Under M.P.E.P. 2144.03, "[i]f the applicant traverses such an assertion the examiner should cite a reference in support of his or her position." The Applicant hereby traverses the assertion and requests that a reference be cited in support of the position outlined in the Office Action.

In view of the foregoing, it is respectfully asserted that the claims are now in condition for allowance.

Conclusion

It is believed that this Amendment places the above-identified patent application into condition for allowance. Early favorable consideration of this Amendment is earnestly solicited.

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[17] Office Action, p. 4.

If, in the opinion of the Examiner, an interview would expedite the prosecution of this application, the Examiner is invited to call the undersigned attorney at the number indicated below.
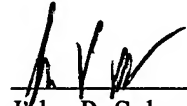
The Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Please charge any additional required fee or credit any overpayment not otherwise paid or credited to our deposit account No. 50-1698.

Respectfully submitted,

THELEN REID BROWN
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Dated: November 26, 2007

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